HF Happenings 738

South African Radio League * Suid-Afrikaanse Radioliga Member Society of the International Amateur Radio Union since 1925

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Bouvet Island

Dear DX friends,

There has been some confusion about what amateur radio calls have been licensed for use from the Bouvet Island (2nd Most Wanted DXCC Entity; IOTA AN-002) for the year to come.

The Norwegian Communications Authority informs me that the following licenses are valid as of 25 January 2017:

3YOG Granted to ON4WW, valid from 1 January 2017 to 30 April 2017.

3Y0Z Granted to LA6VM, valid from 1 December 2017 to 30 April 2018.

3YOH Granted to RA9USU, valid from 1 January 2018 to 28 February 2018.

3YOI Granted to 3Z9DX, valid from 13 January 2017 to 31 December 2017.

73 from Tom, LA4LN, NRRL HF Traffic Manager

How to Learn Morse Code - Semiconsciously

Scientific American magazine reports learning Morse code, with its tappity-tap rhythms of dots and dashes, could take far less effort—and attention—than one might think

The trick is a wearable computer that engages the sensory powers of touch, according to a recent pilot study. The results suggest that mobile devices may be able to teach us manual skills, almost subconsciously, as we go about our everyday routines.

Ph.D. student Caitlyn Seim and computer science professor Thad Starner of the Georgia Institute of Technology tinker with haptics, the integration of vibrations or other tactile cues with computing gadgets.

Last September at the 20th International Symposium on Wearable Computers in Heidelberg, Germany, they announced that they had programmed Google Glass to passively

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You can now download your copy of HF Happenings from www.sarl.org.za/

hf happenings.asp

January

1 - New Year's Day; start of 2017 CQ Marathon

2 - Public Holiday

11 - All schools open (thank goodness)

14 - Cosmic Collisions, Bloemfon-

20 to 22 - PEARS National VHF/ UHF Contest

21 - Passport to the Universe, Bloemfontein; **RAE Registration opens**

25 - Closing date February Radio ZS articles

26 to 29 - Up the Creek, Swellen-

28 - Summer QRP Sprint; Chinese New Year; City of Stars, Bloemfontein

28 and 29 - Delheim Harvest Festival

28 Jan to 12 Feb - Darling Music Experience

29 - Sani Pass. Wild Flower Walk 31 - Closing date for motions for the 2017 AGM and for nomina-

tions to serve on the League Coun-

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teach its wearers Morse code — with preliminary signs of success.

Read the Scientific American story at

https://www.scientificamerican.com/article/how-to-learn-morse-code-mdash-semiconsciously/

African DX

Mauritania, 5T0. Jean, ON8RA/5T0JL, will be active with the special call sign 5T0ITU from Mauritania until 31 December. The special call sign will be tentatively activated during ITU events that are listed on his QRZ.com page. Activity will be on 80 to 10 metres using CW. Suggested frequencies are 3 504, 7 004, 10 104, 14 004, 18 069, 21 004, 24 893 and 28 004 kHz. QSL via ON8RA.

Algeria, 7V7. Vlad, UA4WHX, continues his African tour and is now active using a special call sign, 7V7V, from Dira, Algeria, on the way to Bou Saada. As this was being written, activity has been on 80 metres CW, but also look for him to possibly be on 40 and 30 metres using CW, SSB and RTTY. As always, the length of his stay is not known. QSL via his home call sign.

African Tour (Reminder). Peter, HA3AUI, will once again be active from two West African countries between (approx.!) 20 January and 5 March. His plans are to be active as 6W2SC from Cabrousse, Senegal and as J5UAP from Cabroxo, Guinea-Bissau. Specific dates were not provided. Watch his Web page for possible updates at http://cgafrica.net/en/welcome/index.html

He does state that from Senegal (6W) he will have a K3, Spiderbeam, 100 or 500 W and will operate on 20 to 10 meters CW (other bands/modes on request). Peter may activate some IOTAs and/or WFFs as 6W2SC/p. From Guinea-Bissau (J5), he will have a K3, 100 w, verticals, and operate 20 to 10 metres CW (other modes on request). QSL via LoTW or direct via his home call sign HA3AUI.

Senegal, 6W. Ron, VE3REV, moved to Dakar, Senegal in August 2016 and is now active as 6W1SU. He will be there for two or three years and will be active on 80 to 6 metres "phone only, but hoping to tackle CW later." He asks DXers to be "tolerant, patient, polite and supportive" with him. QSL via MOURX's OQRS at www.mourx.com/oqrs/ and LoTW; traditional cards via MOURX (direct only).

Namibia, V5. Georg, DD8ZX, and Klaus, DJ9KM, will be active again as V5/DD8ZX and V5/DJ9KM from Namibia between 6 and 18 February. They will operate SSB, RTTY and PSK on 160 to 10 metres and if possible on 6 m. Plans are to participate in the CQ WW WPX RTTY Contest (11 and 12 February), possibly as V55V (QSL via DJ8VC). QSL via V5/DD8ZX via DD8ZX (direct or bureau); QSL V5/DJ9KM via DJ9KM (direct or bureau) and LoTW.

Melilla, EA9. Look for Tom EA9/DJ6TF, Sigi EA9/DL7DF, Juergen EA9/DL7UFN, and Frank EA9/DL7UFR to be active from Melilla between 15 and 22 March. They will operate CW, SSB, RTTY and PSK31 on 160 to 10 metres with two stations. QSLs via DL7DF, direct or bureau and LoTW "within six months after the DXpedition". OQRS and further information can be found on www.dl7df.com/ea9/.

Ghana, 9G5X. The website for the 7 to 21 March 9G5X DXpedition to Ghana can be found at www.ossett.net/9G5X. Six operators will be active on 160-10 metres CW, SSB and RTTY with three stations. QSL via MOOXO's OQRS and LoTW; log search with leader board on Club Log.

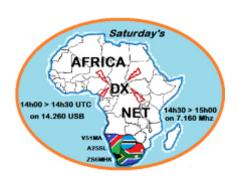
African Islands

IOTA frequencies

CW: 28 040 24 920 21 040 18 098 14 040 10 114 7 030 3 530 kHz

SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7 055 3 760 kHz





February

5 - AWA CW Activity

10 to 12 - Love Rosendal Festival 11 and 12 - SARL National Field Day; Midmar Mile; Magoebaskloof Berry festival

14 - Valentine's Day

18 - SARL Youth Sprint; AMSAT SA SDR Workshop at the NARC

22 - Closing date articles for March Radio ZS

24 and 25 - Clarens Craft Beer Festival

25 - West Rand ARC Flea Market

26 - SARL Digital Contest

24 to 26 - Stellenbosch Wine Festival

27 - National Milk Tart Day

CIA documents about Ham radio declassified online

CIA reports about amateur (ham) radio in the former Soviet Union (including the Baltic States) and Warsaw Pact member countries have been declassified to a new online search engine.

The website is www.cia.gov/ library/readingroom/search/site/ amateur%20ham%20radio

The documents include translations and assessments of: amateur radio clubs, including DOSAAF; training; monitoring sputniks; technology and equipment; and even qsl cards. All the documents have been declassified and made available to the public for the first time in this internet archive; some were previously available in a closed system at the US national archives.

Measurement Handbook

The fourth edition of the "Agilent Impedance Measurement Handbook" is available and it provides guidance on how to make accurate measurements under various conditions http://cp.literature.agilent.com/litweb/pdf/5950-3000.pdf. As automated measurements become more the

US Naval Academy HFsat Coordinated for 15 to 10 Metre Transponder

The US Naval Academy has received IARU satellite frequency coordination for HFsat, a 1.5 U CubeSat carrying a 15 to 10 metre inverting linear transponder with a 30 kHz bandwidth (uplink 21,4 MHz, downlink 29,42 MHz) http://aprs.org/hfsat.html. The Mode K configuration is reminiscent of the old "RS" series of Russian satellites. The CubeSat will also carry an APRS digipeater on 145,825 MHz. The US Naval Academy's Bob Bruninga, WB4APR, said HFsat is designed to demonstrate the viability of HF satellites as a back-up communication system, taking advantage of HF radios found in a typical Amateur Radio installation or frequently used to support disaster and emergency response communication.

"HFsat will be gravity gradient-stabilized by its full-sized 10 metre half-wave HF dipole with tip masses," Bruninga explained on the HFsat web page. "HFsat will continue the long tradition of small amateur satellites designed by aerospace students at the US Naval Academy."

A standardized CubeSat VHF communication card based on the popular Byonics MTT4B all-in-one APRS Tiny-Track4 module for telemetry, command, and control is under development at the Academy. Students are working with Bill Ress, N6GHZ, on the HF transponder card. HFsat's control operator will be Todd Bruner, WB1HAI.

Bruninga sees a future for Amateur Radio satellites operating on the HF bands. "HFsat will operate under the ITU rules of the Amateur Satellite Service since not only does that service currently have allocations for satellite relay on HF, but it is also the only service with nearly a century of knowledgeable operators' experience with the HF bands under all conditions," Bruninga wrote on the HFsat web page. "Should the system prove viable, and should other services desire to use the transponder technology, then the lengthy process to obtain federal HF [satellite communication] allocations could be considered."

Bye-bye 3,5 mm

Electronics industry analysts are predicting that 3,5 mm headphone jacks will increasingly be disappearing from high-end cellular phones and other consumer electronics over the next year www.consumerreports.org/consumer-electronics-show/ces-2017-audio-preview/. The trend, which started to be mainstream with the Apple iPhone 7, is accelerating. Many devices already have Bluetooth wireless circuitry, and eliminating the 3,5 mm jack cuts production costs and a potential source of a mechanical problem. Removing the hole in the case makes it easier to fluid-proof devices as well. With the retail prices of Bluetooth audio modules in the sub \$10 range, we will likely be seeing wireless audio capability built into our ham gear. Suitable audio latency is a headset characteristic to verify before using any CW application.

Keeping track

Keeping track of connectors, small parts, hardware, etc., can be made easier with a good storage system and one of the top choices outside the US is made by Sortimo, as demonstrated in the video featuring Adam Savage www.tested.com/art/makers/45036-inside-adam-savages-man-cave-the-tool-boxes/.

norm, the handbook also points out how to recognize and avoid inaccurate measurement results.

Crystal radio

The Boy's Life website recently featured a how-to article on building a crystal radio http://boyslife.org/hobbies-projects/
projects/40/catch-some-radio-wave. The design uses a wound coil and germanium diode driving a telephone handset. The telephone handset may be the most difficult component to find.

Co-ax

When good coax goes bad, it is often due to water ingress. DX Engineering has published a technical tip showing how to use a combination of rubber splicing tape and vinyl tape to make weatherproof coax connectors https://static.dxengineering.com/global/images/chartsguides/t/tes-2155.pdf.

Grounding in the Shack

The Flexradio folks have shared an application note regarding grounding in the shack https://helpdesk.flexradio.com/hc/en-us/articles/204779159-Grounding-Systems-in-the-Ham-Shack-Paradigms-Facts-and-Fallacies. Single point grounding and the differences between RF and electrical grounding are among some of the topics discussed.

Word to the Wise

Cans: headphones. It is said it originated from British slang, potentially among BBC employees.

Operating Tip

Run, or Search and Pounce? In general, it really is all about the rate, making the most number of points per minute. Logging programs can provide information to help make decisions on how to operate moment to moment, but you also have to know the scoring rules. For example, if you have made 400 contacts worth 2 points each so far and have 27 multipliers, you will have 21 600 points. Here is one way to predict your next hour: Assume conditions stay the same. If your logging program is telling you that your hourly rate is 60, and the band does not change and the mix of multipliers remains the same at about 4 per hour, you might expect to add 7 520 points to your score, or about 125 points per minute during the next hour. At the time of prediction, one multiplier is worth 800 points, or about 6,4 minutes of rate. If you can find and work more than one multiplier every 6 minutes, you should consider S&P. Otherwise, run.

The catch is that there are other variables and conditions *do* change. There may not be enough multipliers available to support working one every 6 minutes. A higher rate may be available on this band or another band. Multipliers may be available now that will not be available later. The reasonable strategy? Know what you and your station are capable of to inform your decisions. Run on one VFO, find multipliers on the other. Only work multiplier stations on that second VFO until you are assured that there are no multipliers to work. Evaluate what you are doing at frequent intervals.

Contest Calendar

This week's contests as compiled by Bruce Horn, WA7BNM. The period covered is 23 to 30 January 2017

SKCC Sprint

00:00 - 02:00 UTC 25 January

Mode: CW

Bands: 160, 80, 40, 20, 15, 10 m

Classes: (none)

Exchange: RST, state, province or country, name and SKCC no

or power

Work stations: Once per band

QSO Points: 1 point per QSO; Bonus Points: 5 points per Centurion member QSO per band; 10 points per Tribune member QSO per band; 25 points per QSO with SKCC club call (K9SKC)

per band

Multipliers: Each state, province or country once Score Calculation: Total score = (total QSO points x total

mults) and bonus points

Submit logs by: 23:59 UTC 27 January 2017

E-mail log summary to: (none)

Post log summary at: http://www.skccgroup.com/
operating activities/weekday sprint/submit-display.php

Mail logs to: (none)

Find rules at: http://www.skccgroup.com/ operating activities/weekday sprint/

NAQCC CW Sprint

01:30 - 03:30 UTC 25 January

Mode: CW

Bands: 160 m Only Classes: (none) Max power: 5 watts

Exchange: RST, state, province or country and NAQCC no or

power

Work stations: Once per band

QSO Points: 1 point per QSO with non-member; 2 points per

QSO with member

Multipliers: Each state, province or country once Key Type Mult: 2 x if straight key, 1.5 x if bug, 1 x if other Score Calculation: Total score = total QSO points x total mults

x key type mult

Submit logs by: 23:59 UTC 29 January 2017
Upload log at: http://nagcc.info/sprintlog.html

Mail logs to: John Shannon, K3WWP, 478 E. High St., Kittan-

ning, PA 16201, USA

Find rules at: http://naqcc.info/sprint/

sprint201701 160.html

QRP Fox Hunt

02:00 - 03:30 UTC 25 January

Mode: CW Bands: 40 m Only

Classes: Single Op – fox or hound

Max power: 5 watts

Exchange: RST, state, province or country, name and power

output

QSO Points: 1 point per QSO

Multipliers: (none)

Score Calculation: Total score = total QSO points Submit logs by: 03:30 UTC 26 January 2017

E-mail logs to: (see rules) Mail logs to: (none)

Find rules at: http://www.qrpfoxhunt.org/winter-rules.htm

Phone Fray

02:30 - 03:00 UTC 25 January

Mode: SSB

Bands: 160, 80, 40, 20, 15 m

Classes: Single Op Max power: 100 watts

Exchange: NA: Name and state, province or country; non-NA:

Name

Work stations: Once per band

QSO Points: NA station: 1 point per QSO; non-NA station: 1

point per QSO with an NA station

Multipliers: Each US state (including KH6/KL7) once per band; Each VE province/territory once per band; Each North Ameri-

can country (except W/VE) once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 03:00 UTC 27 January 2017

E-mail logs to: (none)

Post log summary at: http://www.3830scores.com

Mail logs to: (none)

Find rules at: http://www.perluma.com/

Phone Fray Contest Rules.pdf

CWops Mini-CWT Test

13:00 - 14:00 UTC and 19:00 - 20:00 UTC 25 January and

03:00 - 04:00 UTC 26 January

Mode: CW

Bands: 160, 80, 40, 20, 15, 10 m Classes: Single Op - QRP, low or high

Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts Exchange: Member: Name and member no; non-Member:

Name and state, province or country Work stations: Once per band QSO Points: 1 point per QSO Multipliers: Each call once

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 04:00 UTC 28 January 2017

Post log summary at: http://www.3830scores.com

Mail logs to: (none)

Find rules at: http://www.cwops.org/cwt.html

UKEICC 80 m Contest

20:00 - 21:00 UTC 25 January

Mode: CW Bands: 80 m Only

Classes: Single Op Connected - QRP, low or high; Single Op

Unconnected - QRP, low or high

Max power: HP: 1 500 watts; LP: 100 watts; QRP: 5 watts

Exchange: 4-Character grid square

QSO Points: 1 point per 500 km; multiply QSO points by 2 if low power station; multiply QSO points by 4 if QRP station

Multipliers: (none)

Score Calculation: Total score = total QSO points Submit logs by: 22:00 UTC 25 January 2017

E-mail logs to: (none)

Upload log at: http://logs.ukeicc.com/cgi-bin/hfenter.pl

Mail logs to: (none)

Find rules at: http://www.ukeicc.com/which-contest/which-

contest-ukeicc-80 m-contests-rules

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NCCC RTTY Sprint

01:45 - 02:15 UTC 27 January

Mode: RTTY Bands: (see rules) Classes: (none)

Exchange: Serial no, name and QTH

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 29 January 2017

E-mail logs to: (none)

Post log summary at: http://www.3830scores.com/

Mail logs to: (none)

Find rules at: http://www.ncccsprInternationalcom/

rttyns.html

QRP Fox Hunt

02:00 - 03:30 UTC 27 January

Mode: CW Bands: 80 m Only

Classes: Single Op - fox or hound

Max power: 5 watts

Exchange: RST, state, province or country, name and power

output

QSO Points: 1 point per QSO

Multipliers: (none)

Score Calculation: Total score = total QSO points Submit logs by: 03:30 UTC 28 January 2017

E-mail logs to: (see rules) Mail logs to: (none)

Find rules at: http://www.qrpfoxhunt.org/winter-rules.htm

NCCC Sprint Ladder

02:30 - 03:00 UTC 27 January

Mode: CW

Bands: 160, 80, 40, 20, 15, 10, 6 m

Classes: Single Op Max power: 100 watts

Exchange: Serial no, name and QTH Work stations: Once per band

QSO Points: NA station: 1 point per QSO; non-NA station: 1

point per QSO with an NA station

Multipliers: Each US state (including KL7 and KH6) once per band; Each VE province once per band; Each North American

country (except W/VE) once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 29 January 2017

E-mail logs to: (none)

Post log summary at: http://www.3830scores.com

Mail logs to: (none)

Find rules at: http://www.ncccsprInternationalcom/

rules.html

CQ 160-Meter CW Contest

22:00 UTC 27 January to 22:00 UTC 29 January

Mode: CW

Bands: 160 m Only

Classes: Single Op - QRP, low or high; Single Op Assisted

(High); Multi-Op (High)

Max operating hours: Single Op: 30 hours; Multi-Op: 40

hours

Max power: HP: >150 watts; LP: 150 watts; QRP: 5 watts

Exchange: W/VE: RST and state or province; DX: RST and CQ

Zone

QSO Points: 2 points per QSO with own country; 5 points per QSO with other countries on same continent; 10 points per QSO with other continents; 5 points per QSO with maritime

mobile

Multipliers: Each US state and DC (excluding KH6/KL7); Each VE province; Each DXCC and WAE country (including KH6/

KL7)

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 22:00 UTC 3 February 2016

E-mail logs to: 160cw@cq160.com

Mail logs to: CQ 160 Meter Contest, 17 West John St., Hicks-

ville, NY 11801, USA

Find rules at: http://www.cq160.com/rules.htm

Montana QSO Party

00:00 - 24:00 UTC 28 January Mode: CW, Phone, Digital Bands: 160 to 70 cm

Classes: Single Op - CW, phone, digital or mixed - QRP, low or high; Multi-Single - CW, phone, digital or mixed - QRP, low or high; Mobile/Rover - CW, phone, digital or mixed - QRP, low

or high

Max power: HP: >150 watts; LP: 150 watts; QRP: 5 watts Exchange: MT: RS(T) and county; non-MT: RS(T) and state,

province or "DX"

Work stations: Once per band per mode

QSO Points: 1 point per SSB QSO; 2 points per CW/Digital

วรด

Multipliers: MT: Each state, province or MT county once per

mode; Non-MT: each MT County once per mode Power: >150 W: 1 X, 150 W: 2 X, QRP: 3 X

Score Calculation: Total score = total QSO points x total mults

x power mult

Submit logs by: 4 February 2017

E-mail logs to: MTQSOParty2017@tuscor.net

Post log summary at: http://fvarc.org/?q=MT-QSO-Entry

Mail logs to: (none)

Find rules at: http://fvarc.org/sites/default/files/library/2017%20MT%20QSO%20Party%20Rules 0.pdf

REF CW Contest

06:00 UTC 28 January to 18:00 UTC 29 January

Mode: CW

Bands: 80, 40, 20, 15, 10 m

Classes: Single Op All Band - QRP, low or high; Single Op Single Band - QRP, low or high; Multi-Single - QRP, low or high;

Club; SWL

Max operating hours: Single Op: 28 hours in no more than

three increments of at least 1 hour each

Max power: HP: >100 Watts; LP: 100 Watts; QRP: 5 Watts Exchange: French: RST and Department/Prefix; non-French:

RST and serial no

Work stations: Once per band

QSO Points: French: 6 points per QSO with French station same continent; French: 15 points per QSO with French station on different continent; French: 1 point per QSO with non-French station same continent; French: 2 points per QSO with non-French station on different continent; non-French: 1 point per QSO with French station same continent; non-

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French: 3 points per QSO with French station on different con-

tinent

Multipliers: French/Corsica departments once per band; French overseas prefixes once per band; non-French DXCC countries once per band (available only to French stations) Score Calculation: Total score = total QSO points x total mults

Submit logs by: 13 February 2017 E-mail logs to: cdfcw@ref-union.org

Mail logs to: (none)

Find rules at: http://concours.ref-union.org/reglements/

actuels/reg cdfhf dx.pdf

BARTG RTTY Sprint

12:00 UTC 28 January to 12:00 UTC 29 January

Mode: RTTY

Bands: 80, 40, 20, 15, 10 m

Next Week's Contests

QRP Fox Hunt, 02:00 - 03:30 UTC 1 February Phone Fray, 02:30 - 03:00 UTC 1 February

CWops Mini-CWT Test, 13:00 - 14:00 UTC, 19:00 - 20:00 UTC 1

February and 03:00 - 04:00 UTC 2 February

UKEICC 80 m Contest, 20:00 - 21:00 UTC 1 February

NRAU 10 m Activity Contest, 18:00 - 19:00 UTC (CW), 19:00 -

20:00 UTC (SSB), 20:00 - 21:00 UTC (FM) and 21:00 - 22:00

UTC 2 February (Dig)

NCCC RTTY Sprint, 01:45 - 02:15 UTC 3 February QRP Fox Hunt, 02:00 - 03:30 UTC 3 February

NCCC Sprint Ladder, 02:30 - 03:00 UTC 3 February

YLRL YL-OM Contest, 14:00 UTC 3 February to 02:00 UTC 5

Vermont QSO Party, 00:00 UTC 4 February to 24:00 UTC 5 February

Triathlon DX Contest, 00:00 - 07:59 UTC (CW), 08:00 – 15:59

UTC (SSB), 16:00 - 23:59 UTC 4 February (RTTY)

Classes: Single Op Expert; Single Op - QRP, low or high; Multi-

Op; SWL

Max power: HP: >100 W; LP: 100 W; QRP: 5 W

Exchange: Serial no (no signal report)
Work stations: Once per band
QSO Points: 1 point per QSO

Multipliers: DXCC countries once regardless of band; JA, W, VE

and VK areas once regardless of band

Score Calculation: Total score = total QSO points x total mults x

continents

Submit logs by: 5 February 2017

E-mail logs to: (none)

Upload log at: http://bartg.rsgbcc.org/cgi-bin/hfenter.pl

Mail logs to: (none)

Find rules at: http://s3.spanglefish.com/s/7850/documents/contests/sprint/rules/current/bartg%20sprint%20rules%

202017.pdf

10-10 International Winter SSB Contest, 00:01 UTC 4 February to 23:59 UTC 5 February

Black Sea Cup International, 12:00 UTC 4 February to 11:59

UTC 5 February

F9AA Cup, CW, 12:00 UTC 4 February to 12:00 UTC 5 February Minnesota QSO Party, 14:00 - 24:00 UTC 4 February FYBO Winter QRP Sprint, 14:00 - 24:00 UTC 4 February AGCW Straight Key Party, 16:00 - 19:00 UTC 4 February British Columbia QSO Party, 16:00 UTC 4 February to 04:00 UTC 5 February

FISTS Winter Slow Speed Sprint, 17:00 - 21:00 UTC 4 February Mexico RTTY International Contest, 18:00 UTC 4 February to 17:59 UTC 5 February

North American Sprint, CW, 00:00 - 04:00 UTC 5 February RSGB 80 m Club Championship, SSB, 20:00 - 21:30 UTC 6 February

ARS Spartan Sprint, 02:00 - 04:00 UTC 7 February





HF Happenings

Items used with acknowledgement to the ARRL Letter, the ARRL DX News, the ARRL Contest Update, OPDX Bulletin, 425 DX Bulletin, DXNL Newsletter, WIA-News, the RSGB News, DxCoffee, Southgate ARC News, DX World and the Amateur Radio Newsletter

